

COMPARATIVE INSPECTIONS

ABSTRACT OF THE DISCLOSURE

The present invention provides a high-precision alignment method, device and code for inspections that compare an inspection image with a reference image and
5 detect defects from their differences. In one embodiment an inspection image and a
reference image are divided into multiple regions. An offset is calculated for each pair of
regions. Out of these multiple offsets, only the offsets with high reliability are used to
determine an offset for the entire image. This allows high-precision alignment with little
or no dependency on pattern density or shape, differences in luminance between images,
10 and uneven luminance within individual images. Also, detection sensitivity is adjusted as
necessary by monitoring alignment precision.

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PA 3130849 v1

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